**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. (original): A method for detecting, in liver tissue isolated from a human subject and suspected of being cancerous, integration of HBV-DNA into the MLL4 gene, said integration of HBV-DNA indicating cancerous nature of a tissue.

2. (original): The method according to claim 1, for detecting integration of HBV-DNA into the MLL4 gene by

conducting a polymerase chain reaction (PCR) on DNA from the liver tissue; and

confirming the integration of HBV-DNA into the MLL4 gene by determining the base sequence of the amplified DNA.

3. (original): The method according to claim 2, wherein the integration of a region containing the HBV-DNA X gene into intron 3 of the MLL4 gene is confirmed.

4. (original): The method according to claim 1, for detecting the integration of HBV-DNA into intron 3 of the MLL4 gene.

5. (original): The method according to claim 4, for detecting the integration of HBV-DNA into the region of intron 3 of the MLL4 gene from base number 17515 to 17818 from the 5′ end.

6. (currently amended): The method according to claim 1, ~~4, or 5,~~ wherein the HBV-DNA is a region containing the X gene of HBV.

7. (original): A method for detecting, in liver tissue isolated from a human subject and suspected of being cancerous, integration of HBV-DNA into the MLL4 gene, said integration of HBV-DNA indicating the cancerous nature of a tissue, by a procedure comprising the steps of:

(1) extracting DNA from the liver tissue;

(2) carrying out PCR using, with the DNA obtained in (1) being used as template, a first primer specific to the region containing intron 3 of the MLL4 gene and a first primer specific to the X gene region of HBV; and

(3) optionally carrying out PCR again using ,with the DNA amplified in (2) being used as template, a second primer specific to the region containing intron 3 of the MLL4 gene and a second primer specific to the X gene region of HBV.

8. (currently amended): The method according to claim 1 ~~any of claims 1, 4, 5, and 6~~, wherein integration of HBV-DNA into the MLL4 gene is detected by detecting an MLL4 gene/HBV fusion transcription product.

9. (original): The method according to claim 8, for detecting an MLL4 gene/HBV X region fusion transcription product.

10. (currently amended): The method according to claim 1~~any of claims 1, 4, 5, and 6~~, wherein integration of HBV-DNA into the MLL4 gene is detected by detecting an MLL4/HBV fusion protein.

11. (original): The method according to claim 10, comprising detecting an MLL4/HBV X region fusion protein.

12. (currently amended): The method according to claim 10~~ or 11~~, which uses an antibody or antibody fragment that specifically binds to an MLL4/HBV X region fusion protein.

13. (original): A method for detecting, in liver tissue isolated from a human subject and suspected of being cancerous, a t (17;19) (p11.2;q13.1) chromosomal translocation of the MLL4 gene, said translocation indicating the cancerous nature of a tissue.

14. (original): The method according to claim 13, for detecting the t (17;19) (p11.2;q13.1) chromosomal translocation of the MLL4 gene by detecting a base sequence that includes a junction between chromosome 17 and chromosome 19.

15. (original): The method according to claim 14, for detecting a base sequence containing a junction between chromosome 17 and chromosome 19 by a procedure comprising the steps of:

(1) extracting DNA from the liver tissue;

(2) carrying out PCR using, with the obtained DNA being used as template, a first primer specific to a region containing p11.2 of chromosome 17 and a first primer specific to a region containing intron 3 of the MLL4 gene at q13.1 of chromosome 19; and

(3) carrying out PCR using, with the amplified DNA being used as template, a second primer specific to the region containing p11.2 of chromosome 17 and a second primer specific to the region containing intron 3 of the MLL4 gene at q13.1 of chromosome 19.

16. (original): A kit for detecting the integration of HBV-DNA into the MLL4 gene.

17. (original): A kit for detecting the integration of HBV-DNA into intron 3 of the MLL4 gene.

18. (original): A kit for detecting the integration of the X region of HBV into intron 3 of the MLL4 gene.

19. (original): The kit according to claim 18, comprising a primer or probe specific to the region containing intron 3 of the MLL4 gene and a primer or probe specific to the X region of HBV.

20. (original): A kit for detecting an MLL4 gene/HBV X region fusion transcription product.

21. (original): A kit for detecting an MLL4 gene/HBV X region fusion protein.

22. (original): The kit according to claim 21, comprising an antibody or antibody fragment that specifically binds to an MLL4/HBV X region fusion protein.

23. (original): A kit for detecting a t (17;19) (p11.2;q13.1) chromosomal translocation of the MLL4 gene.

24. (original): The kit according to claim 23, comprising a primer or probe specific to the region containing intron 3 of the MLL4 gene and a primer or probe specific to the region containing p11.2 of chromosome 17.